

WHAT IS CLAIMED IS:

1. An automatic dispensing tip supply apparatus comprising:

5 a tip storing box whose bottom has a tapered surface having a tip collecting position in a lowermost part thereof to collect a plurality of dispensing tips in one spot through an insertion port;

10 a tip individually-sending mechanism configured to lift up the dispensing tips, which are collected in the tip collecting position, one by one;

an outlet formed to discharge the dispensing tips, which are lifted up by the tip individually-sending mechanism, from the tip storing box;

15 a door mechanism including a door which is turnably supported at a top end thereof to close the tip storing box from outside and a tip holding section which is provided on an inside of the door to horizontally hold one of the dispensing tips lifted up by the tip individually-sending mechanism; and

20 a tip carry-out mechanism including a carry-out conveyor to automatically carry the dispensing tips, which are dropped from the tip holding section when the door opens, out of the tip storing box through the outlet,

25 wherein the tip holding section of the door mechanism includes a V-shaped groove which is formed in the door to insert a greater part of one dispensing tip

excluding at least a large-diameter proximal end portion and a tip stopping piece which is projected up toward a lower edge of the V-shaped groove.

5 2. The automatic dispensing tip supply apparatus according to claim 1, wherein the tip individually-sending mechanism includes a lifting plate which is driven up and down by a drive source, and the lifting plate has a top end face having a space enough to place only one dispensing tip lying on a side thereof and a
10 tapered surface that descends toward an outside of the tip storing box.

 3. The automatic dispensing tip supply apparatus according to claim 1, wherein the tip storing box includes a stopper on the tapered surface of the
15 bottom, and the stopper appropriately limits the number of dispensing tips that slide on the tapered surface.

 4. The automatic dispensing tip supply apparatus according to claim 2, wherein the tip storing box includes a stopper on the tapered surface of the
20 bottom, and the stopper appropriately limits the number of dispensing tips that slide on the tapered surface.